### **EXECUTIVE SUMMARY**

Date Summary Prepared: August 13, 2009

Mine Name: Sage Canyon Mass Grading Project	I.D. Number: M/049/0071
Operator: Geneva Rock Products, Inc.	Date Original Notice Received: June 15, 2009
Address: 1565 West 400 North	County: Utah
Orem, UT, 84057	New/Existing: New LMO
Contact Person: Mike Edwards	Mineral Ownership: Fee
<b>Telephone:</b> 801-281-7890	Surface Ownership: Fee

Life of Mine: About 20 years.

**Legal Description**: Portions of Sections 13 and 24 of and 24 of Township 4 South, Range 1 West, and Section 18 and 19 of Township 4 South, Range 1 East, SLBM.

Mineral(s) to be Mined: Sand, gravel and crushed and/or screened aggregate for construction materials, including concrete and asphalt.

Acres to be Disturbed: The life of mine disturbance is 137 acres.

Present Land Use: Grazing and wildlife habitat.

Postmining Land Use: Lehi City has approved a residential development.

Variances from Reclamation Standards (Rule R647) Granted: None.

### Soils and Geology

Soil Description: Soils on the project area are classified as the Kilburn very gravelly sandy loam. The top 8 inches will be salvaged and stockpiled for reclamation. Stockpiled soils will be seeded to protect against erosion until used for reclamation.

pH: Soil pH ranges from 5.85 to 6.27.

**Special Handling Problems**: None anticipated.

Geology Description: The geology underlying the ridges above Tower and Sage Canyons consists of deep layers of bedrock that are included in the Oquirrh Group, which is of the Pennsylvanian/Permian age. This rock is primarily limestone interbedded with cherty beds and orthoquartzite layers. Bedrock in the area is highly faulted, fractured, and shattered, as revealed by Geneva's mining activities in the near vicinity.

## **Hydrology**

Ground Water Description: None of the adjacent mining activities have encountered any groundwater.

Absence of any groundwater in the adjacent mining works would indicate groundwater is probably 400 to 500 feet deeper than the deepest excavation on this project. Geneva's excavation activities will have no effect on area ground water.

Surface Water Description: There are no perennial streams or intermittent waters within the vicinity of the proposed operations. Any precipitation and/or runoff into the quarry from sheet flow is intercepted and collected in a storage pond near the mine entry.

#### **Ecology**

Vegetation Type(s); Dominant Species: The dominant vegetation community type is desert grass/shrubland, which, according to the NRCS, would have a native community dominated by mountain big sagebrush,

Page 2 of 2 Executive Summary M/049/0071

bitterbrush, serviceberry, bluebunch wheatgrass, Indian ricegrass, mutton grass, and needle and thread grass. Since most the area has been disturbed/overgrazed, the current vegetation community is dominated by sagebrush and weedy species, such as big rabbitbrush, snakeweed, ragweed, and cheatgrass.

Percent Surrounding Vegetative Cover: <u>Vegetation ground cover was estimated at approximately 73 percent.</u>

Wildlife Concerns: The Utah Conservation Database lists seven threatened or endangered species and 35 species of concern that could potentially inhabit the area of the project. None of these species were found on the project area, and an analysis of the habitat requirements show that suitable habitat does not exist in the project area for these species.

Surface Facilities: Most of the facilities that will be used for this site will be those currently used on adjacent properties. Other than the potential for using crushers, extracted materials will be conveyed to Geneva's Point of the Mountain Facility.

## **Mining and Reclamation Plan Summary:**

# **During Operations:**

Before new areas are disturbed, the available topsoil will be salvaged and stockpiled. Limestone will be removed by drilling, blasting, and dozing in fifty-foot lifts. Material will be transported to the adjacent Point of the Mountain property for processing. Material will be used for road base, landscape rock, cement and asphalt production, and other construction uses. Estimated production over the next 5 years is 2 million tons/year. Crushers and conveyors are equipped with water sprays to control fugitive dust. The operator has acquired appropriate permits from DEQ.

### **After Operations:**

All facilities will be removed from the site. Any hazardous or potentially hazardous materials will be hauled to a licensed landfill. The area will be regraded to facilitate residential/commercial development. Compacted areas will be ripped to promote vegetation growth. Salvaged topsoil will then be spread at an approximate depth of 6 inches and seeded with an approved seed mix. If required (based on soil analysis), the topsoil will be amended with up to 10 tons/acre of composted manure.

#### Surety

Amount: \$628,000, escalated to 2014 dollars.

Form: Not yet submitted
Renewable Term: 5 years

LK:pb

P:\GROUPS\MINERALS\WP\M049-Utah\M0490071-SageCanyon\final\exec-3022-08132009.doc